

AMENDMENTS TO THE CLAIMS

Claims 1-27 (Cancelled).

28. (Currently Amended) An apparatus comprising:

a first substrate portion having a ~~dielectric layer on a surface~~ plurality of active devices formed thereon and defining a first device surface; and

a second single crystal substrate portion having active devices formed thereon and defining a second device surface,

wherein the first device surface ~~layer~~ of the first substrate portion is bonded directly to the second device surface of the second substrate portion by a thermal anneal at a temperature suitable to device structures on the first and second device structures, and

wherein selected ones of said active devices of said second substrate portion are intercoupled via metal lines.

29. (Cancelled)

30. (Currently Amended) The apparatus of claim ~~29~~ 28, wherein selected ones of the devices of the first substrate portion and selected ones of the devices of the second substrate portion are interconnected.

31. (Currently Amended) An apparatus comprising:

a primary substrate having a first level of devices formed thereon and defining a first device surface; and

at least one secondary single crystal substrate having active devices formed thereon and defining a second device surface, wherein the first device surface of the primary substrate is connected directly to the second device surface of the at least one secondary single crystal substrate such that selected ones of said active devices of said at least one secondary single crystal substrate are intercoupled via metal lines to selected ones of the first level of devices of the primary substrate, and wherein the bond joint between the primary substrate and the secondary substrate is formed by a thermal anneal at a temperature suitable to device structures on the primary substrate and the secondary substrate.

32. (Cancelled).

33. (Previously Presented) The apparatus of claim 28, wherein said first substrate portion is made of a single crystal silicon.

34. (Previously Presented) The apparatus of claim 31, wherein said primary substrate is made of a single crystal silicon.

Claims 35-36 (Cancelled).

37. (Previously Presented) The apparatus of claim 28, wherein the first substrate portion is formed as a film of less than an entire portion of a starting material by demarcating a film thickness through an ion implantation into the starting material and separating the first substrate portion from the starting material.